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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,508	01/24/2001	Khaled H. El-Maleh	PA010047	9977

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QUALCOMM, INC
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EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2668	

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/771,508	EL-MALEH ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Amendment filed on 9/22/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-10,12-16,19,20 and 22* is/are rejected.

7)☒ Claim(s) *5,11,17 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

H Nguyen

HANH NGUYEN
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/23/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The amendment filed in 9/22/05 has been entered and considered.

The drawing objection in claims 1, 7, 13, 16 and 19-22 has been withdrawn.

The rejection of claims 5 and 11 under 35 USC 112 2nd has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2-4, 6, 7-10 and 12-15 are rejected under 35 USC 103(a) as being unpatentable over Abe et al. (US Pat. 5,581,652) in view of Jensen et al. (US pat. 6,362,762 B1).

In claims 1 and 7, Abe et a1. discloses an apparatus for converting a wideband speech signal into a narrowband speech signal (an example in fig.2 shows a wideband speech signal is converted into a narrowband speech signal), comprising a bandwidth switching filter (fig.2, bandpass filter 201) for receiving the wideband speech signal, wherein the bandwidth switching filter emphasizes a portion of the frequency spectrum of the wideband speech signal to produce an output signal with a non-flat frequency spectrum (the bandpass filter 201 removes frequency below 300 Hz and above 3.4 KHZ in order to produce a narrowband speech, see co1.4, lines 46-55) and a down sampler (down sampling 200, fig.2) for decimating the outpul signal of the bandwidth switching filter (extracting from the wideband signal a signal of the sameband as that of the narrowband speech, see co1.4, lines 35- 40). The wideband speech is 8KHz and the

narrowband speech is between 300Hz and 3400Hz. Abe et al. further discloses a an LPC analyzer 306 (a control element, see fig.4), after receiving a decoded wideband signal from decoder 304 (fig.4), synthesizes the wideband speech (see col.6, lines 15-20). Abe et al. does not discloses a switch coupled to a control element. Jensen et al. discloses , in fig.5, a wideband switch 211 is closed (a switch is activated) when analog signal (wideband speech signal) is transmitted on wideband path 210 (see col.6, lines 54-65). Therefore, it would have been obvious to couple the wideband switch 211 of Jensen with the analyser 306 (fig.4) of Abe et al. on order to activate the switch and convert the wideband voice signal into narrowband voice signal.

In claims 13, Abe et al. discloses an apparatus for decoding a wideband speech signal and for converting the wideband speech signal into a narrowband speech signal (see fig.4, decoder 304) comprising a speech synthesis element for creating a synthesized wideband speech signal (LPC speech synthesizer 306, fig.4); and a bandwidth switching filter (fig.2, bandpass filter 201) for receiving the wideband speech signal, wherein the bandwidth switching filter emphasizes a portion of the frequency spectrum of the wideband speech signal to produce an output signal with a non-flat frequency spectrum (the bandpass filter 201 removes frequency below 300 Hz and above 3.4 KHZ in order to produce a narrowband speech, see co1.4, lines 46-55)

Claims 2-4, 6, 8-10, 12, 14, 15 are rejected because their limitations have been addressed in claim 1.

Claims 16, 19, 20 and 22 are rejected under 35 USC 103(a) as being unpatentable over Abe et al. (US Pat. 5,581,652) in view of Lee et al. (Pat. 6,539,050 B1).

In claim 16, as disclosed in the rejection of claims 1 and 7 by Abe et al, , Abe et al. does not disclose receiving a signal carrying a wideband wave form at a base station, wherein the wideband waveform is for further transmission from the base station to a target destination; determining whether the target destination can process wideband waveform and if the target destination can process wideband wave form, then transmitting the wideband wave form to the target destination without converting the wideband waveform into a narrowband waveform. Lee et al. discloses receiving a signal carrying a wideband wave form at a base station, wherein the wideband waveform is for further traansmission from the base station to a target destination (fig.1, base station 10 receives wideband signal 16 from transceiver 18, wherein the received wideband signals at the base station 10 couled be destined for a device connected to a network 20, see col.4, lines 5-40. The system of Lee discloses that wideband signals are transmitted via a radio system adapted for transmitting narrowband signals and vice versa. (see col.3, lines 55-65). Therefore, refer to fig.5, based on the received signals 12 and 16 carrying orgothonal codes assigned to transceivers 14 or 18, a mapping is performed between each input data stream the assigned orthogonal code (determining whether the destination can process the wideband or narrowband signals by mapping one or more orthogonal codes, see col.5, lines 60-65 & col.6, lines 25-35). Therefore, it would have been obvious to combine the teachings of Lee et al. with Abe et al. in order to determine whether the destination can process the wideband siganls or narrowband signals.

Allowable Subject Matter

Claims 5, 11, 17 and 1 8 are objected to as being dependent upon a rejected bae claim, but would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claims 5 and 11, the prior art fails to disclose the down sampler decimates at a rate of M=2 , wherein an output sequence of samples y(n) is related to an input sequence x(n) by the relationship y(n) = x(Mn).

In claim 17, the prior art does not disclose the determination of whether the target destination can process the wideband waveform comprises the step of determining whether the target destination is supported by a wideband vocoder.

Response to Arguments

Applicant's arguments with respect to claims 1-4, 6-10, 12-16, 19, 20 and 22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schwaller (US Pat. 5,585,850) discloses Adaptive distribution system for transmitting wideband video data over narrowband multichannel wireless communication system.

Long et al. (US paat. 5640385) discloses Method and apparatus for simultaneous wideband and narrowband wireless communication.

Gustafsson et al. (US pat. No. 6,704,711 B2) discloses system and method for modifying speech signals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The

examiner can normally be reached on Monday-friday from 8:30AM to 4:30PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan, can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

Dcember 2, 2005